

## Section of Psychiatry

President Wilfrid Warren MD

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### New Techniques in Behaviour Therapy

**Dr Raymond Levy and Dr Victor Meyer**  
(Academic Department of Psychiatry,  
Middlesex Hospital Medical School,  
London W1P 8AA)

#### Ritual Prevention in Obsessional Patients

It is generally agreed that the treatment of severe obsessive-compulsive neurosis is a most difficult and unrewarding task. Sometimes Draconian measures such as repeated leucotomy combined with a variety of other treatments have been recommended. The prognosis is felt to be poor though perhaps not as poor as is suggested in standard textbooks.

In recent years some interest has been aroused by the use of behavioural techniques but results have generally been disappointing. Faced with the intractable nature of compulsive rituals, patients' relatives and bold psychiatrists have sometimes attempted to interfere with such rituals, usually without success. Fears have often been expressed that such interference would produce overwhelming anxiety or aggressive outbursts, but there has been little systematic evidence either to support or to refute this suggestion. This paper reports the results of a follow-up study of patients treated in this way. We have adopted a Greek neologism to describe the method which we now refer to as 'apotrepic therapy' (from ἀποτρέπω—to turn away, deter or dissuade). We chose this term as being purely descriptive and not carrying any particular implication about etiology or therapeutic mechanism such as the term 'response prevention' which some might prefer.

*The patients:* The criteria for inclusion were: (1) That patients should suffer from true compulsive rituals; those with ruminative thoughts not associated with rituals were excluded.

(2) That the clinical picture should be dominated by the rituals and the diagnosis should be one of obsessive-compulsive neurosis. Patients with obsessional symptoms occurring in the course of another condition were not included, although associated psychological problems which were always present were not taken as grounds for exclusion. (3) That patients were to receive no other treatment except for night sedation; those who had been taking antidepressants or tranquilizers had their drugs withdrawn in the week before treatment started.

The first 8 cases treated and followed up for a minimum of one year are discussed here.

In so far as any selective bias in referral may have occurred there was a tendency for patients to be severely incapacitated people in whom other methods of treatment had failed. Table 1 summarizes some of the clinical data on these patients.

*Method of treatment:* This involved continual supervision during the waking hours by nurses who were instructed to prevent the patient from carrying out any rituals. This was achieved in a variety of ways which included engaging the patient in other activities, discussion, sometimes

**Table 1**  
Clinical data on 8 obsessional patients treated by apotrepic therapy

Case	Age	Sex	Duration of symptoms (years)	Nature of symptoms
1	47	F	36	Repetition, compulsion
2	33	F	6	Checking, washing, &c.
3	25	M	12	Handwashing
4	23	F	11	Repetition, compulsion
5	55	F	28	Repetition and hoarding
6	53	F	26	Handwashing
7	30	F	8	Cleaning and dusting
8	20	F	9	Handwashing
Mean	35.8		17	

cajoling and very occasionally the use of mild physical restraint which was resorted to only with the patient's agreement.

When total prevention of the rituals had been achieved, the continuous supervision was maintained for a period varying between one and four weeks during which the patient was gradually exposed to situations which previously evoked rituals and was again prevented from carrying these out. Avoidance of such things as door-handles was dealt with by persuasion and occasionally by placing the patient's hand on the avoided object. Supervision was then gradually diminished until the patient was totally unsupervised but occasionally observed. Recurrences during the period of observation were taken as an indication to resume supervision.

**Method of assessment:** Patients were asked to rate their symptoms on a number of visual analogue scales (Aitken 1969) which consisted of 100 mm lines with one extreme indicating maximum incapacity and the other complete normality. Ratings were obtained for rituals, anxiety, depression, work adjustment, social adjustment, sexual adjustment and leisure activities.

The patients were also rated on similar scales by one of us (R L). These ratings were based on

**Table 2**

Changes in compulsive behaviour (observer ratings) in 8 obsessional patients treated by apotretic therapy

Case	Duration of follow up (years)	Behaviour after treatment	Behaviour at follow up
1	6	Much improved	Much improved
2	6	Improved	Much improved
3	3	No symptoms	No symptoms
4	2	No symptoms	Much improved
5	2	Much improved	Improved
6	1.5	Improved	Improved
7	1	Improved	Much improved
8	1	Much improved	Much improved

a psychiatric interview supplemented by information obtained from informants, e.g. relatives and nurses. Patients were rated before treatment, after the end of treatment and at six-month intervals for periods of up to six years.

**Results:** In every case there was a marked diminution of compulsive behaviour occasionally amounting to a total cessation of the rituals after the period of supervision was terminated. Far from there being any emergence of overwhelming anxiety there was usually a concurrent fall in the ratings for both anxiety and depression and an improvement in other ratings except those for sexual adjustment which remained poor.

During the follow-up period 2 patients showed further improvement without treatment, 3 maintained their post-treatment level and 3 showed a slight tendency to a return of compulsive behaviour. This tendency usually manifested itself very soon after discharge from hospital and was not progressive. The sort of changes which occurred are illustrated in Fig 1.

Table 2 summarizes the changes in the observer ratings of rituals. The self-ratings were in the same direction. Where patients showed a fall in ritual score of more than 75% they have been referred to as 'much improved'; where the fall was 50-74% they are referred to as 'improved'.

Six out of 8 patients were judged to be either asymptomatic or much improved at follow up. The other two patients were rated as improved. These were patients with improvement in rating of 69% and 74%.

**Discussion**

This study can of course be criticised on a number of grounds. The ratings are crude, they were not carried out independently and there was no control group. Nevertheless all but one patient had had extensive and repeated courses of treatment by other methods including anti-depressants, major and minor tranquillizers, ECT, leucotomy, psychotherapy and psychoanalysis either separately or in combination.

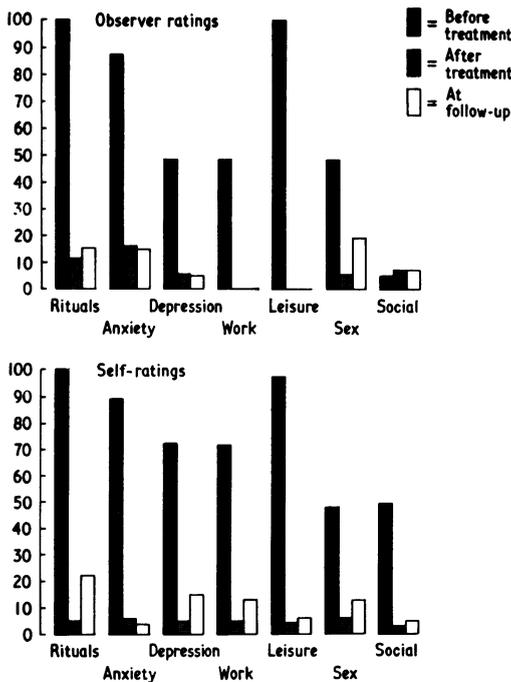


Fig 1 Example of changes in ratings in a patient with a 36-year history of severe obsessional neurosis

The results also compare fairly with published figures for the prognosis of obsessional neurosis. Although such comparisons are not entirely legitimate they provide useful guide lines. Kringlen (1965) found that of 90 patients followed up for 13–20 years only 19 could be said to be much improved. When the follow-up period was shorter the results were even worse. He also found that an obsessional premorbid personality and the presence of severe symptoms were both associated with a poor prognosis. Five of our cases would be judged as severe according to his criteria and all but one had obsessional premorbid personalities so that on any assessment one would have expected a poor prognosis.

A more comparable group of cases is provided by Cooper *et al.* (1965) in their retrospective study of neurotics treated by behaviour therapy. This included 10 obsessionals treated by a combination of graded practical retraining and desensitization in imagination. This group is very similar in age, sex and length of follow up but had a shorter mean duration of symptoms (10 years as compared with 17.6 years). Of these 10 patients only 3 were judged to be improved and none was much improved. The control group of 9 such patients fared rather better in that 5 were improved and 2 were much improved after a year.

Our results are therefore surprisingly good and likely to have been related to our therapeutic intervention. Possible factors responsible for the improvement may have been:

*Therapist-patient relationship:* Although we would not wish to underplay this factor it should be remembered that the treatment was carried out largely by nurses who changed quite frequently. The therapist (V M) who supervised the treatment had not achieved much success using other behavioural methods.

*Alterations in the interaction between patients and their families:* Obsessionals often involve their families in their rituals. By the time the patient was seen the family (usually the spouse) had adopted a pattern of behaviour which could be described, depending on one's orientation, as 'colluding with the patient' or 'reinforcing the symptoms'. Treatment often achieved an alteration in this situation.

*'Modelling' or imitation learning* (Bandura 1969): The therapeutic efficacy of this was recently investigated by Rachman *et al.* (1970) in an obsessional patient. This may have been of some importance particularly in coping with avoidance behaviour; for example, when a patient would not

touch a door-knob the supervisor, in urging her to do so, would repeatedly carry out this action and ask the patient to follow suit.

*Alteration in expectancies* (Meyer 1966): This is an interpretation in cognitive terms which sees the manoeuvre as one which demonstrates to the patient that his failure to perform the ritual does not lead to unpleasant consequences.

*'Implosion':* Although the treatment appears to resemble 'implosion therapy' (Stampfl & Levis 1967, 1968), the similarity is superficial. It does not aim at arousing anxiety. Indeed, after the first few days the procedure usually evoked nothing more than mild tension in most patients.

Walker & Beech (1969), who carried out a detailed study of affective components of compulsive rituals, also found that anxiety did not necessarily bear any constant relationship to the occurrence or otherwise of a ritual.

*Structured situation with limitation of choice:* In this context it is interesting to note that Janet (1925) described 14 cases which improved during their military service and relates that one patient, when his term of service was over, took refuge in a seminary 'in order to have chiefs once more and to be subject to discipline'. Lewis (1936) also referred to a similar case.

One might speculate on the similarities between our approach and the very structured situation obtaining in these organizations. Indeed such a situation would subsume the last two mechanisms on our list.

*Response prevention and 'guidance':* Experimental work on what might be described as animal analogues of human compulsive behaviour (Metzner 1963) and phobias (Baum 1966) have suggested that learnt avoidance responses originally evoked in traumatic situations are very difficult to extinguish unless the response is prevented. Maier (1949) has also shown that inappropriate and stereotyped behaviour patterns established in rats in frustrating circumstances are best eliminated by prevention of the inappropriate response and by physically guiding the animal towards the correct response. This paradigm appears to fit the situation which is involved in the treatment described here.

We would like to end on a note of caution. Although the treatment we have described appears simple and effective it is both stressful and time consuming for those involved. It requires considerable patience and ingenuity on the part of the nurses who are with the patients all the time and wherever they go. It also demands from the nurses, the psychologists and the

psychiatrists concerned the adoption of authoritarian attitudes which are not part of their usual roles. Although we hope that this approach will be more widely used, and that further studies may help us to understand it more fully and to plan the most economic and effective way of applying it, we urge that this should only be done where the staff concerned can have the closest supervision and fullest support. The line between firm but sympathetic control and unpleasant and inhumane bullying is a thin one indeed and all too easy to cross when one has devoted a lot of time and energy to a patient who relentlessly and monotonously pursues an unchanging course.

#### REFERENCES

- Aitken R C B (1969) *Proc. roy. Soc. Med.* 62, 989  
 Bandura A  
 (1969) *Principles of Behaviour Modification*. New York  
 Baum M (1966) *Psychol. Rep.* 18, 19  
 Cooper J (1970) *Psychol. Med.* 1, 48  
 Cooper J E, Gelder M G & Marks I M  
 (1965) *Brit. med. J.* i, 1222  
 Janet P  
 (1925) *Psychological Healing*. London & New York; Vol. 2  
 Kringlen E (1965) *Brit. J. Psychiat.* 111, 709  
 Lewis A (1936) *Proc. roy. Soc. Med.* 29, 325  
 Maier N R F  
 (1949) *Frustration: The Study of Behaviour Without Goal*. New York  
 Metzner R (1963) *Behaviour Res. Ther.* 1, 231  
 Meyer V (1966) *Behaviour Res. Ther.* 4, 273  
 Rachman S, Hodgson R & Marzillier J  
 (1970) *Behaviour Res. Ther.* 8, 385  
 Stampf T G & Lewis D J  
 (1967) *J. abnorm. Psychol.* 72, 496  
 (1968) *Behaviour Res. Ther.* 6, 31  
 Walker V J & Beech H R  
 (1969) *Brit. J. Psychiat.* 115, 1261

**Dr R Gaird, Dr J P Watson and Dr I M Marks**  
*(Institute of Psychiatry,  
 De Crespigny Park, Denmark Hill, London SE5  
 and Guy's Hospital, London SE1)*

#### Some Approaches to the Treatment of Phobic Disorders

The treatment of phobic disorders has been extensively studied in recent years, both pharmacologically (Klein 1964, 1970, Kelly *et al.* 1970) and psychologically (Marks 1969). The psychological techniques include desensitization, modelling, shaping (Crowe 1970) and flooding (implosion). Desensitization involves a gradual relaxed approach to the phobic situation whereas modelling implies that the therapist precedes the patient into it. In shaping, the patient is praised lavishly for each tiny step towards the phobic situation, and ignored if there is no progress. Flooding involves the patient's immediate con-

frontation with the phobic object without escape until he becomes used to it. This confrontation can be in imagination (the patient visualizes phobic fantasies continuously for up to an hour) or in real life (the patient is brought into contact with the actual phobic object).

Flooding is more effective than desensitization in the treatment of phobic disorders (Marks *et al.* 1971). Results from another study (Watson & Marks 1971) suggest that treatment in real life might be more effective than treatment in imagination, and that such treatment might be more effective if sessions were prolonged, perhaps for well over an hour. Our flooding procedure has therefore become modified, with more emphasis on treatment in practice for up to 2-3 hours at a time. We have termed this procedure 'prolonged exposure'.

#### *Prolonged Exposure in Specific Phobics*

A pilot study was made of 'prolonged exposure' in specific phobics, since, although they are rarer than agoraphobics in psychiatric practice, it is easier to monitor their physiological responses during encounter with the real phobic object. Our earlier patients received flooding in imagination first to accustom them to the idea of confronting the feared object in real life. Later patients had no preliminary treatment in fantasy. During imaginal flooding the patient was attached to a polygraph for continuous recording of heart rate and skin conductance while he listened to a tape-recorded description of his meeting feared situations and suffering the same imagined disastrous consequences of being in them which he had previously described in interview. The tapes only described situations and patient's feelings in them, omitting possibly relevant psychodynamic material. Each tape consisted of four themes, each about seven minutes long and repeated four times, so that every imaginal session lasted about two hours.

Heart rate responses during treatment by flooding in fantasy - i.e. during the continuous imagining of phobic scenes - were of three types. Most frequently the heart rate increased early in the session, and returned towards resting level as the session proceeded. Sometimes, however, there was very little tachycardia. Two patients were much more affected by the third and fourth themes which were played during the second hour than by the first two themes which were played during the first hour of the session. The cardiac response to intense imaginal stimuli thus seemed to depend both on the stimulus, in this case a story, and on the order in which different stories were presented. The